

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Rockie and Dena McCaffree 838 Countryman Creek Rd. Columbus, MT 59019
2. Type of action: Application for Beneficial Water Use Permit 43Q 30109915
3. Water source name: Groundwater
4. Location affected by project: Section 8 T1N R27E, Yellowstone County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The applicant proposes to divert water from groundwater, by means of three wells at 150 GPM up to 40.72 AF. Well #1 (GWIC 190128) located in the SENWSE Section 8, T1N, R27E is 29.5 feet deep and proposed for multiple domestic use (12 homes) from January 1 to December 31 and 2.16 AC of lawn and garden from March 15 to November 15 at 35 GPM and 9.43 AF. Well #2 (GWIC 198142) located in SENWSE Section 8, T1N, R27E is 36.6 feet deep and proposed for multiple domestic use (8 homes) from January 1 to December 31 and 1.44 AC of lawn and garden from March 15 to November 15 at 35 GPM and 6.29 AF. Well #3 (GWIC 216686) located in SENWSE Section 8, T1N, R27E is 34 feet deep and proposed for irrigation on 10 AC from March 15 to November 15 at 80 GPM and 25 AF. The Applicant proposes to irrigate 3.6 AC of lawn and garden and 10 AC of common area. The place of use is generally located in NWSE Section 8, T1N, R27E, Yellowstone County approximately 2.5 miles east of Billings. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.
6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Bureau of Mines and Geology
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program
United States Fish and Wildlife Service
United States Natural Resource and Conservation Service

Part II. Environmental Review

1. **Environmental Impact Checklist:**

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – The project would draw water from groundwater east of Billings. Based on aquifer test results the proposed project would create a cone of depression extending 10,000 feet from the wells. The area of effect can't extend beyond aquifer boundaries including the Yellowstone River and the edge of the alluvial aquifer to the east. The aquifer flux through this region is greater than the current legal demands on the groundwater in the area. The appropriation of groundwater will deplete the stretch of the Yellowstone River between the western section line of Section 8 T1N R27E, Yellowstone County and the Huntley Project Irrigation District diversion dam. The Yellowstone River in this reach is listed by the Montana Department of Fish, Wildlife, and Parks as periodically dewatered. The maximum depletion to the Yellowstone River due to this appropriation would be 32 GPM in September. In September, the Yellowstone River at Billings, approximately 5.5 miles upstream has a median of the mean flow rate of 3,718 CFS.

Determination: No Significant Impact

Water quality – The water appropriated would be returned to the aquifer through irrigation and through individual drainfields at each of the 20 residences. Based on Department of Natural Resources and Conservation standards and analysis roughly 73% of appropriated water will return to the aquifer either by infiltration of irrigation water or through drainfields. The return of water from residential yards and drainfields has the potential to degrade groundwater quality. The Montana Department of Environmental Quality and the Yellowstone County Health Department monitor and regulate public water supply and drainfield installation. If water quality falls below health limits, treatment of the water supply would be required.

Determination: Possible Impact

Groundwater – This proposed project will divert 40.72 AF/YR of water from the alluvial aquifer of the Yellowstone River Valley. The amount of water available in the area exceeds legal demands on the aquifer based on analysis by Department of Natural Resources and Conservation hydrogeologists and drawdown from the well is acceptable. The appropriation will probably deplete surface water in the Yellowstone River. The depletion to the Yellowstone River is relatively minor and although the Yellowstone River in this reach is listed as periodically dewatered by the Montana Department of Fish, Wildlife, and Parks, this appropriation will not worsen the existing condition.

Determination: No Significant Impact

DIVERSION WORKS – The proposed wells were drilled by a licensed Montana well driller and can be assumed to be properly constructed. The diversion will not create barriers or alter riparian environments or stream channels. The area in question has been in residential use and is not adjacent to any naturally occurring watercourse. The soils in the area are not unstable.

Determination: No Impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – According to the Montana Natural Heritage Program there are no plant species of concern in the region possibly affected by this project. There are eleven animal species of concern including the Spotted Bat, Hoary Bat, Little Brown Myotis, Great Blue Heron, Black-billed Cuckoo, Pinyon Jay, Spiny Softshell, Plains Hog-nosed Snake, Western Milksnake, Greater Short-horned Lizard and Sauger. The area of this project is currently residential with none of the appropriate habitat for listed species of concern. Based on mapping of Sage Grouse habitat by the Montana Sage Grouse Habitat Conservation Program, the project area is not in an area of Sage Grouse habitat.

Determination: No Significant Impact

Wetlands – The National Wetlands Inventory prepared by the United States Fish and Wildlife Service shows no wetlands within 1,000 feet of the area potentially impacted by this project. There are emergent palustrine wetlands to the north and west and some open water associated with the Yellowstone River.

Determination: No Impact

Ponds – The proposed project does not involve ponds.

Determination: No Impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soil in the area is Lohmiller soils with low slopes. These soils are well drained and very slightly to slightly saline. The slopes are uniformly low and very stable. No change to soil quality or stability is predicted. Soil moisture may increase due to irrigation water infiltration.

Determination: No Significant Impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The entire project area has been used for residential homes. No existing vegetation is critical to habitat. The construction equipment necessary for development may transport noxious weeds to the site. It will be the responsibility of the developer to monitor and control noxious weeds.

Determination: No Significant Impact

AIR QUALITY – The proposed project is for subdivision development of existing residential land. No change to air quality is predicted.

Determination: No Significant Impact

HISTORICAL AND ARCHEOLOGICAL SITES – This project is not located on State or Federal land and this section is not applicable to the specific project.

Determination: Not Applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - No demands on environmental resources not discussed above are recognized.

Determination: No Significant Impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – The project lies within Yellowstone County and would be subject to county zoning restrictions, subdivision review and public water and wastewater regulations. The proposed use is not inconsistent with county zoning regulations.

Determination: No Impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – There are no nearby wilderness areas or recreational sites and no changes to the transportation system are expected.

Determination: No Impact

HUMAN HEALTH – The project would have limited impact on public health. Drinking water quality may be affected by residential drainfields. Community water supply systems are regulated by the Montana Department of Environmental Quality.

Determination: No Significant Impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No X___ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: Not Applicable.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No Significant Impact
- (b) Local and state tax base and tax revenues? No Significant Impact
- (c) Existing land uses? No Significant Impact
- (d) Quantity and distribution of employment? No Significant Impact

- (e) Distribution and density of population and housing? The project would increase available housing in the area and generally increase the population density. No Significant Impact
- (f) Demands for government services? The residential homes would increase demand for fire and police protection. No Significant Impact
- (g) Industrial and commercial activity? No Significant Impact
- (h) Utilities? The new residential homes would increase demand for electric, gas and telephone services. No Significant Impact
- (i) Transportation? The subdivision would generate additional traffic. No Significant Impact
- (j) Safety? No Significant Impact
- (k) Other appropriate social and economic circumstances? No Significant Impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts associated with the proposed project are recognized.

Cumulative Impacts: There are no other pending permit applications in the area. There are no known actions under concurrent consideration by any state agency in the vicinity of the project. The continued use of groundwater for residential subdivisions in the area has potential for cumulative impact on water availability and quality. Traffic, utilities and government services are additional possible cumulative impacts.

3. *Describe any mitigation/stipulation measures:* None.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:* The reasonable alternatives are to grant the beneficial water use permit or the no action alternative. The no action alternative prevents the Applicant from developing a residential subdivision and denies the economic benefit. The no action alternative has few significant advantages over the proposed project. The no action alternative prevents needed housing.

PART III. Conclusion

1. *Preferred Alternative:* Issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

2 *Comments and Responses:* None.

3. Finding:

Yes___ No__**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: Although some potential impacts are recognized, none appear significant and an EA is the appropriate level of analysis. Moreover, the Department of Natural Resources and Conservation is required to meet statutory timelines (MCA 35-2-307) in the processing of water right applications precluding the preparation of an Environmental Impact Statement.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison

Title: Hydrologist/Specialist

Date: 3/3/2017